

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A movable platform apparatus for a transit vehicle having at least an outer wall, said transit vehicle further having a door portal aperture formed through said at least outer wall, said door portal aperture having at least one door for at least partially covering and uncovering said door portal aperture, said transit vehicle additionally having a stairwell formed within a floor portion of said transit vehicle adjacent said door portal aperture, said stairwell having at least one step member, said movable platform apparatus for cooperating with a low stationary platform having a surface disposed horizontally at a height of under 14 inches from a ground level and with a high stationary platform having a surface disposed horizontally at a height greater than 14 inches from said ground level, said movable platform apparatus comprising:

(a) a movable platform having a platform member including a nose portion, said movable platform further having a pair of support portions, each of said pair of support portions attached to each side of said platform member, said movable platform additionally having at least one pair of rolling members rotatably attached to each of said pair of said support portions;

(b) a rack attached to one of said pair of said support portions; and

(c) a pinion engaging said rack;

~~(b)~~ (d) a driving means coupled to said platform member pinion, said driving means being one of a foot operated wheel disposed above said floor portion adjacent an interior wall structure of said transit vehicle and a hand operated wheel disposed at a predetermined distance above said floor portion, said hand wheel coupled to said pinion by a power transmission means, said power transmission means is selected from one of a chain, cable, and belt, said pinion has a predetermined configuration for coupling to said power transmission means; and

~~(e)~~ (e) a pair of guide means disposed within said stairwell under said floor portion.

2. (Currently Amended) A movable platform apparatus according to claim 1, wherein said pair of support portions ~~formed are integrally on~~ are formed integral to said platform member.

3. (Canceled)

4. (Currently Amended) A movable platform apparatus according to claim 3 27, wherein said prime mover is one of an electrical, pneumatic, and hydraulic prime mover.

5. (Original) A movable platform apparatus according to claim 1, wherein said pair of guide means is a pair of rails having a predetermined configuration to cooperate with at least two pairs of said rolling members.

6. (Currently Amended) A movable platform apparatus according to claim 4 27, further comprising a locking means disposed within said movable platform apparatus, said locking means comprising:

(a) at least one lock having:

(i) a base member having at least one mounting cavity;

(ii) a lock cam pivotally mounted to said base member at a first pivot, said lock cam having a lock cavity;

(iii) a lock actuator attached to said base member, said lock actuator having a movable actuator portion engaging a lock step of said lock cam for preventing rotation of said lock cam in an unlocking direction while said movable member is maintained in a locked position, said lock actuator further having an energized actuator portion for withdrawing said moveable actuator portion from

engagement with said lock cam for enabling rotation of said lock cam in an unlocking direction, said lock actuator additionally having a second biasing spring means encasing said movable actuator portion intermediate said energized actuator portion and a flange disposed on said movable actuator portion, said second biasing spring means for biasing said movable actuator portion against said lock cam in said locked position;

(iv) a first biasing spring means mounted at said first pivot, said first biasing spring means enabling pivoting of said lock cam in said unlocking direction, said first biasing spring means further enabling movement of said platform member in a deployment direction; and

(b) at least one lock pin engageable with said lock cavity of said lock cam in a locked condition.

7. (Original) A movable platform apparatus according to claim 6, wherein said energized actuator portion is a solenoid having a second electrical connection with said control member of said transit vehicle.

8. (Original) A movable platform apparatus according to claim 6, wherein an attachment and a disposition of said at least one lock and said at least one lock pin is reversible

between said transit vehicle and said movable platform apparatus, said at least one lock engaging said at least one lock pin for securing said movable platform in said first position disposed below said floor portion, said at least one lock engaging said at least one lock pin for securing said movable platform in said third position deployed outwardly to at least partially fill a gap between said high platform and said outer wall of said transit vehicle.

9. (Original) A movable platform apparatus according to claim 6, further comprising a cable attached to a movable member of said lock actuator at one end, said cable attached to a remotely mounted handle at a distal end, said movable member coupled to said movable actuator portion of said lock actuator, said cable for manual unlocking of said platform member.

10. (Currently Amended) A movable platform apparatus according to claim ~~4~~ 6, further comprising at least one electrical switch cooperating with said ~~at least one~~ locking means, said at least one electrical switch for enabling an interlocking and a synchronization of said movable platform apparatus movement with an operation of said at least one door.

11. (Canceled)

12. (Currently Amended) A movable platform apparatus according to claim ~~11~~ 27, wherein ~~said sensing means is coupled to said platform member,~~ said sensing means comprising:

(a) a sensing member having a first longitudinal cavity of a first predetermined size, at least one internal rib portion, and an attachment portion;

(b) ~~[[a]]~~ said platform member having a second cavity disposed within said nose portion ~~of said movable member,~~ ~~said second cavity~~ for accepting said attachment portion of said sensing member, said platform member further having a third cavity; and

(c) a sensing element of a second predetermined size disposed within said first longitudinal cavity of said sensing member, said sensing element having a third electrical connection portion routed through said third cavity of said movable member for connection to said control system of said transit vehicle.

13. (Original) A movable platform apparatus according to claim 12, wherein said sensing element comprising an enclosure, a first contact disposed on one surface of said enclosure, and a second contact disposed on the opposite surface of said enclosure, said second contact disposed substantially opposite

said first contact, said first contact and said second contact connected to said third electrical connection portion, said first contact is maintained at a predetermined distance in respect to said second contact under normal condition, said first contact coupling said second contact upon compression of said sensing member enabling further compression of said enclosure of said sensing element, said coupling producing an electrical signal sent to said control member via said third electrical connection portion of said sensing member.

14. (Original) A movable platform apparatus according to claim 13, wherein said sensing member is a rubber extrusion.

15. (Currently Amended) A movable platform apparatus according to claim ~~11~~ 27, wherein ~~said sensing means is coupled to said movable member,~~ said sensing means comprising:

(a) a sensing member of a sealed pressure chamber type having an attachment portion, said sensing member further having a connection portion of a first predetermined diameter;

(b) ~~(a)~~ said platform member having a second cavity disposed within said nose portion ~~of said movable member, said second cavity~~ for accepting said attachment portion, said ~~movable~~ platform member further having a third cavity for accepting said connection portion of said nose member; and

(c) a pressure wave switch having a forth electrical connection to said control member, said pressure wave switch further connected to said connection portion of said first predetermined diameter, said pressure wave switch for converting a pressure differential generated upon compression of said nose member into an electrical signal sent to said control member.

16. (Canceled).

17. (Withdrawn) A passenger ingress and egress conversion system in a transit vehicle having at least an outer wall, said transit vehicle further having a door portal aperture formed through said at least outer wall, said transit vehicle additionally having a stairwell formed within a floor portion of said transit vehicle, said stairwell disposed adjacent said door portal aperture, said stairwell having at least one step member, said passenger ingress and egress conversion system for cooperating with a low stationary platform having a surface disposed horizontally at a height of under 14 inches from a ground level, said passenger ingress and egress conversion system for cooperating with a high stationary platform having a surface disposed horizontally at a height of greater than 14 inches from said ground level said passenger ingress and egress conversion system comprising:

(a) a door portal aperture closure means disposed within said door portal aperture for at least partially covering and uncovering said door portal aperture, said door portal closure means selected from the group consisting of at least one plug door movable first outwardly and then substantially linear along said at least outer wall, at least one sliding door movable in a substantially linear path into a door cavity to uncover such door portal aperture for passenger ingress and egress, said door cavity disposed between said at least outer wall and an inner wall of said transit vehicle, and at least one sliding door movable in a substantially linear path along said outer wall; and

(b) a movable platform apparatus disposed adjacent said door portal aperture substantially exposing said stairwell for enabling ingress and egress to and from said low stationary platform in a first position being disposed under said floor portion, said movable platform apparatus substantially covering said stairwell for enabling ingress and egress to and from said high stationery platform in a second position being disposed about an inner surface of said door portal aperture closure means and in a third position, being for filling at least part of a gap in between said high stationary platform and said outer wall, said movable platform apparatus including:

- (i) a movable platform having a platform member including a nose portion, said movable platform further having a pair of support portions, each of said pair of support portions attached to each side of said platform member, said movable platform additionally having at least one pair of a rolling members rotatably attached to each of said pair of said support portions;
- (ii) a driving means coupled to said platform member; and a pair of guide means disposed within said stairwell, said pair of guide means further disposed under said floor portion.

18. (Withdrawn) A passenger ingress and egress conversion system according to claim 17, wherein said door portal closure means includes a recess disposed outwardly of said transit vehicle, said recess enabling said movable platform apparatus to at least partially reduce a gap prior to said door portal closure means moving for at least partially uncovering said door portal aperture.

19. (Withdrawn) A passenger ingress and egress conversion system according to claim 17, further comprising a disability aid means disposed within said floor portion, said disability aid means compliant with ADA regulations for enabling ingress

and egress of disabled passengers, said disability aid means further enabling ingress and egress of disabled passengers using a wheelchair.

20. (Withdrawn) A passenger ingress and egress conversion system according to claim 19, wherein said disability aid means comprising said floor portion of not more than .5 inches in thickness having said nose portion formed by a combination of a first element being of .25 inches maximum in thickness and disposed in the substantially vertical plane, said nose portion further formed by a second element being of a .25 inches maximum in thickness and disposed at 45 degree angle in respect to said first element.

21. (Withdrawn) A passenger ingress and egress conversion system according to claim 19, wherein said disability aid means comprising said floor portion of more than .5 inches in thickness having said second element of said nose portion disposed inwardly into said transit vehicle at a first predetermined angle, said first predetermined angle is about equal to or less than 10.5 degrees.

22. (Withdrawn) A passenger ingress and egress conversion system according to claim 19, wherein said disability aid means

comprising a floor member having a hinge for coupling to said floor portion, said hinge biasing said floor member for disposition in the vertical plane within said stairwell, said hinge enabling rotation of said floor member in a clockwise direction to a second predetermined angle, said disability aid means further comprising said guide means and said platform member disposed at a third predetermined angle in respect to said floor portion, said third predetermined angle enabling said nose portion of said platform member to be disposed substantially coplanar with said floor portion in said third position, said second predetermined angle is about equal to or less than 10.5 degrees, said third predetermined angle is about equal to or less than 10.5 degrees.

23. (Withdrawn) A passenger ingress and egress conversion system according to claim 17, further comprising an obstruction detection means disposed within said transit vehicle, said obstruction detection means having a sensing means connected to said control member of said transit vehicle.

24. (Withdrawn) A passenger ingress and egress conversion system according to claim 23, wherein said sensing means comprising a transmitter disposed on one of said stairwell wall members and a receiver disposed on an opposite stairwell wall

member, said transmitter and said receiver having a fifth electrical connection to said control member of said transit vehicle, said transmitter maintaining a signal path with said receiver under normal conditions, said signal path being disabled upon detection of an object disposed within said stairwell, said disabled signal path enabling said control member to prevent deployment of said movable platform.

25. (Withdrawn) A passenger ingress and egress conversion system according to claim 24, wherein said transmitter and said receiver are one of ultrasonic, photo element, and infrared.

26. (Withdrawn) A passenger ingress and egress conversion system in a transit vehicle having a first outer wall and a second outer wall, said transit vehicle further having a first door portal aperture formed through said first outer wall and a second door portal aperture formed through said second outer wall, said second door portal aperture is directly opposite said first door portal aperture, said transit vehicle additionally having first and second stairwells formed within a floor portion of said transit vehicle, said first stairwell disposed adjacent said first door portal aperture, said second stairwell disposed adjacent said second door portal aperture, said first and second stairwells each having at least one step member, said passenger

ingress and egress conversion system for cooperating with a low stationary platform having a surface disposed horizontally at a height of under 14 inches from a ground level, said passenger ingress and egress conversion system for cooperating with a high stationary platform having a surface disposed horizontally at a height of about equal to or greater than 14 inches from said ground level said passenger ingress and egress conversion system comprising:

(a) a first door portal aperture closure means disposed within said first door portal aperture for at least partially covering and uncovering said first door portal aperture, said first door portal closure means being one of at least one plug door movable first outwardly and then substantially linear along said first outer wall and at least one sliding door movable in a substantially linear path into a door cavity to uncover such door portal aperture for passenger ingress and egress, said door cavity disposed between said first outer wall and a first inner wall of said transit vehicle, and at least one sliding door movable in a substantially linear path along said first outer wall;

(b) a second door portal aperture closure means disposed within said second door portal aperture for at least partially covering and uncovering said second door portal aperture, said second door portal closure means being one of at least one plug

door movable first outwardly and then substantially linear along said second outer wall and at least one sliding door movable in a substantially linear path into a door cavity to uncover such door portal aperture for passenger ingress and egress, said door cavity disposed between said second outer wall and a second inner wall of said transit vehicle, and at least one sliding door movable in a substantially linear path along said second outer wall; and

(c) a movable platform apparatus disposed intermediate said first stairwell and said second stairwell, said movable platform apparatus movable in a first direction for enabling ingress and egress to and from said low stationary platform through said first door portal aperture, said movable platform apparatus movable in a second direction for enabling ingress and egress to and from said low stationary platform through said second door portal aperture, said movable platform apparatus including:

(i) a movable platform having a platform member including a nose portion, said movable platform further having a pair of support portions, each of said pair of support portions attached to each side of said platform member, said movable platform additionally having at least one pair of rolling members rotatably attached to each of said pair of said support portions;

- (ii) a driving means coupled to said platform member; and
- (iv) a pair of guide means disposed within said stairwell, under said floor portion.

27. (New) A movable platform apparatus for a transit vehicle having at least an outer wall, said transit vehicle further having a door portal aperture formed through said at least an outer wall, said door portal aperture having at least one door for at least partially covering and uncovering said door portal aperture, said transit vehicle additionally having a stairwell formed within a floor portion of said transit vehicle adjacent said door portal aperture, said stairwell having at least one step member, said movable platform apparatus for cooperating with a low stationary platform having a surface disposed horizontally at a height of under 14 inches from a ground level and with a high stationary platform having a surface disposed horizontally at a height greater than 14 inches from said ground level, said movable platform apparatus comprising:

(a) a movable platform including a platform member having a nose portion, said movable platform further including a pair of support portions, each of said pair of support portions attached to each side of said platform member, said movable platform additionally including at least one pair of rolling members

rotatably attached to each of said pair of said support portions;

(b) a rack attached to one of said pair of said support portions;

(c) a pinion engaging said rack;

(d) a prime mover coupled to said pinion with a coupling means disposed intermediate said prime mover and said pinion, said prime mover having a connection to a power source of said transit vehicle and a first electrical connection to a control member of said transit vehicle, said prime mover is enabled by said control member to selectively move said platform member in a direction towards said at least one door for enabling ingress and egress to and from said high stationary platform and in a direction away from said at least one door for enabling ingress and egress to and from said low stationary platform;

(e) a pair of guide means disposed within said stairwell under said floor portion; and

(f) an obstruction detection means coupled to said nose portion of said platform member.

28. (New) A movable platform apparatus according to claim 27, wherein said obstruction detection means further includes a means for moving said platform member at one of a predetermined rate and at a predetermined electrical current,

monitoring movement of said platform member with said control member, and disabling said movement upon said control member detecting changes to said one of said predetermined rate and said predetermined electrical current.

AMENDMENTS TO THE DESCRIPTION

On page 19, please replace paragraphs on lines 3-18 with the following paragraphs:

Preferably, the lock actuator 230 includes a movable actuator portion 232 engaging a lock step 226 of the lock cam 220 to prevent clockwise rotation of the lock cam ~~20~~ 220 in the locked condition. The lock actuator 230 further includes an energized actuator portion ~~131~~ 231 for withdrawing the moveable actuator portion 232 from engagement with the lock cam 220 to release the lock cam ~~20~~ 220 and, more particularly, to unlock the platform member 62.

A second biasing spring means 238 encasing the movable actuator portion 232 intermediate the energized actuator portion ~~131~~ 231 and a flange 234 bias such movable actuator portion 232 against the lock cam 220 to dispose the lock cam ~~20~~ 220 in the locked condition upon rotation thereof.

The energized actuator portion 231 is an electrical actuator which, in the presently preferred embodiment, is a solenoid. The energized actuator portion ~~131~~ 231 includes a ...

On page 28 line 3 please replace reference numeral --112-- with "12".